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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,151	02/17/2004	Xiao-Qi Zhou	200310352-1	6042

22879 7590 02/27/2006

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EXAMINER

JACKSON, MONIQUE R

ART UNIT PAPER NUMBER

1773

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.		Applicant(s)	
	10/781,151		ZHOU ET AL.	
	Examiner		Art Unit	
	Monique R. Jackson		1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2003-286687 (JP'687) in view of Chartier et al (USPN 5,614,325.) JP'687 teaches a mat coated paper substrate comprising a paper base and provided on either or both sides of the paper base, a finish coat applied on top of an undercoat layer wherein the finish coat layer comprises a binder and a pigment mixture comprising kaolin, calcium carbonate and hollow synthetic resin particles; and the undercoat layer comprises a binder and calcium carbonate (Abstract.) JP'687 teaches that the undercoat layer is preferably provided in a weight of 9 g/m² and the finish coat is preferably coated at a weight of 15 g/m²; wherein the coatings may include various other pigments beyond the recited calcium carbonate and kaolin, and various latex polymers and binder materials may be utilized wherein the amount of binder is more than 5 mass parts, preferably 10-17 mass parts, per 100 mass parts of the pigment (0022-0028.) JP'687 also teach that the hollow synthetic resin particles in the finish coat are provided in an amount of 2-10% by mass based on the total pigment content in the coat (Abstract; 0014) and further teach that other conventional additives may be added to the coating compositions such as a thickener, water retention agent, coloring agent, lubricant, etc. (0026.) Though JP'687 teach that various additives may be incorporated into the coating layers of the coated paper, JP'687 does not teach that the coating layers include a

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discharge control agent, particularly a sulfonated polystyrene as instantly claimed. However, Chartier et al teach that by incorporating a discharge control agent, such as the instantly claimed sodium salt of a highly sulfonated polystyrene, into the coating of a coated paper substrate, improvements are provided in terms of feeding properties when the coated paper is utilized in a friction-feed printing process. Hence, based on the teachings of Chartier et al, it would have been obvious to one having ordinary skill in the art at the time of the invention to provide a discharge control agent, such as a sodium salt of a highly-sulfonated polystyrene, in the paper coating compositions of the invention taught by JP'687, in a sufficient amount (such as 6 weight parts as taught in the example by Chartier et al) and molecular weight to provide the desired conductive properties to reduce the electrostatic charges generated by friction in printer or photocopier paper feeds, as taught by Chartier et al (Col. 3, lines 21-59), when the coated paper taught by JP'687 is utilized in a photocopier or friction feed system. With regards to the particle size of the hollow pigment and other pigment materials, though JP'687 does not specifically teach the particle size or size distribution as instantly claimed, one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum particle size of the particles to utilize in each layer based on the desired coating and matt properties and the desired thickness of the coating layers for a particular end use of the coated paper substrate. With regards to Claims 3 and 4, though JP'687 teach that the substrate is preferably paper, it is known in the art that plastic films are suitable synthetic materials equivalent to paper substrates for use in producing coated printing medium and one having ordinary skill in the art at the time of the invention would have been motivated to utilize

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polymer films as the base and/or determine a suitable base material and internal bond strength for a particular end use of the printing medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508.

The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monique R. Jackson
Primary Examiner
Technology Center 1700
February 21, 2006